

The Alston 5438, distributed as this variety, seems actually to represent the typical B. prismatica (L.) Kuntze.

Additional citations: MEXICO: Michoacán: R. Kral 25562 (Ml).  
LEEWARD ISLANDS: Guadeloupe: Bourgeau 545 (E--1641749, E--1641926, E--1641943).

BOUCHEA PRISMATICA var. LONGIROSTRA Grenz.

Additional bibliography: Alemán Frías, Aurich, Ezcurra Ferrer, Gutiérrez Vázquez, Hortsmann, López Rendueles, Rodríguez Graquiteña, Roquel Casabella, & Schreiber, *Die Kulturpfl.* 19: 421. 1972; Farnsworth, *Pharmacog. Titles* 8 (8): iii. 1973; Moldenke, *Phytologia* 29: 42, 51, 55, 56, 59, & 62--63. 1974.

The Ruiz-Terán & López-Palacios collection, cited below, bears this description of the plant: "Sufrútice erecto, 80 cm" and "Hierbe sufruticulosa, 40--60 cm", with the corollas said to have been "morado claras". They found it growing at an altitude of 1750 meters in Venezuela, fruiting in December. Tillett describes it as "to 6 dm. tall, 6 dm. spread; roots manila; stems lightly purplish; herbage with rank odor; leaves membranous, matte medium green above, matte light green beneath; sepals green; corolla tube and throat nearly white, limb lavender-pink above, lighter beneath" and refer to it as "locally common in dry quebrada" in an area of desert scrub, with cactus and "cují" on dry talus and alluvium in broken ground between base of mountain and river, at 625 meters altitude.

The Correll & Correll 42376, distributed as this variety, is actually typical B. prismatica (L.) Kuntze instead.

Additional citations: VENEZUELA: Mérida: Ruiz-Terán & López-Palacios 9289 (Ac); Tillett 737-45 (N). Sucre: Ruiz-Terán & López-Palacios 9978 (Ld).

BOUCHEA RUSEYI Moldenke

Additional bibliography: Moldenke, *Phytologia* 29: 42 & 64. 1974.

Additional citations: BOLIVIA: Department undetermined: M. Bang 2226 (Pd--isotype).

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ADDITIONAL NOTES ON THE GENUS BURROUGHSIA. I

Harold N. Moldenke

BURROUGHSIA Moldenke, *Phytologia* 1: 411--412. 1940.

Synonymy: Burroughsia Moldenke, *Résumé Suppl.* 15: 16, in syn. 1967.

Additional bibliography: T. S. Brandeg., *Proc. Calif. Acad. Sci.*, ser. 2, 2: 196. 1889; Vasey & Rose, *Contrib. U. S. Nat. Herb.*

1: 86. 1890; Robinson & Greenm., Proc. Am. Acad. 29: 390—391. 1894; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 1, 250 (1903) and imp. 1, 507. 1906; P. C. Standl., Contrib. U. S. Nat. Herb. 23: 1244 & 1247. 1924; H. B. Davis, Life & Works Pringle 124. 1936; Moldenke, Phytologia 1: 411—412. 1940; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 2, 250 & 507. 1941; Moldenke, Alph. List Invalid Names 29 & 30. 1942; Moldenke, Phytologia 2: 93. 1945; Hill & Salisb., Ind. Kew. Suppl. 10: 36 & 251. 1947; Shreve & Wiggins, Carnegie Inst. Wash. Publ. 591: 111. 1951; Angely, Cat. Estat. Gen. Bot. Fan. 17: 3. 1956; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 3, 250 & 507. 1959; Moldenke, Résumé 34, 310, 312, 405, & 443. 1959; S. Hicks, Desert Mag. 27 (10): 39. 1964; Moldenke in Shreve & Wiggins, Veg. & Fl. Son. Des. 2: 1246—1247. 1964; F. A. Barkley, List Ord. Fam. Anthoph. 75 & 147. 1965; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 7, 167. 1966; Moldenke, Résumé Suppl. 15: 16. 1967; Moldenke, Fifth Summ. 1: 67 & 403 (1971) and 2: 550, 554, 752, & 851. 1971; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 8, 172. 1973.

BURROUGHSlA APPENDICULATA (Robinson & Greenm.) Moldenke, Phytologia 1: 412. 1940.

Synonymy: Lippia appendiculata Robinson & Greenm., Proc. Am. Acad. 29: 390—391. 1894.

Bibliography: Robinson & Greenm., Proc. Am. Acad. 29: 390—391. 1894; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 1, 507. 1906; P. C. Standl., Contrib. U. S. Nat. Herb. 23: 1244—1247. 1924; H. B. Davis, Life & Works Pringle 124. 1936; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 2, 507. 1941; Moldenke, Alph. List Invalid Names 29. 1942; Hill & Salisb., Ind. Kew. Suppl. 10: 26 & 251. 1947; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 3, 507. 1959; Moldenke, Résumé 34, 310, & 443. 1959; Moldenke, Fifth Summ. 1: 67 (1971) and 2: 550 & 851. 1971.

The type of this species was collected by Cyrus Guernsey Pringle (no. 4625) in wet alkaline soil on the Mapimi desert in Durango [the labels are inscribed "San Luis Potosí" but the original description says "Durango"], Mexico, flowering in November. The same distinguished collector's no. 11082 is from 6000 feet altitude at Yermo, also on the Mapimi desert but in Coahuila, flowering in September. The collector asserts that the species is "known only from the Mapima desert". More recent collectors have encountered it on "low ground" and on "lava flows", describe it as suffrutescent, and have found it in flower in May and in fruit in November.

The corollas are described as having been "whitish" on Correll & Johnston 21557 and as "white with yellow eye" on Correll & Johnston 21440.

Additional citations: MEXICO: Chihuahua: Correll & Johnston 21557 (Ld). Coahuila: Pringle 11082 (Cm, F—159643, It, N), s.n. [Yermo Station, 9.1902] (Gg—31166). Durango: Correll & Johnston 21440 (Ld); Pringle 4625 (Br—isotype, C—isotype, Ca—104926—isotype, F—106241—isotype, F—photo of isotype, G—type, Io—

38718—*isotype*, Me—*isotype*, Me—*isotype*, Me—*isotype*, Ms—30866—*isotype*, N—*photo of isotype*, Ob—50723—*isotype*, S—*isotype*, Si—*photo of isotype*, Vt—*isotype*, Z—*photo of isotype*).

BURROUGHSIA FASTIGIATA (T. S. Brandeg.) Moldenke, *Phytologia* 1: 412. 1940.

Synonymy: *Lippia fastigiata* T. S. Brandeg., *Proc. Calif. Acad. Sci.*, ser. 2, 2: 196. 1889. *Burroughsia fastigiata* (Brand.) Moldenke, *Résumé Suppl.* 15: 16, in syn. 1967.

Bibliography: T. S. Brandeg., *Proc. Calif. Acad. Sci.*, ser. 2, 2: 196. 1889; Vasey & Rose, *Contrib. U. S. Nat. Herb.* 1: 86. 1890; Durand & Jacks., *Ind. Kew. Suppl.* 1, imp. 1, 250. 1903; P. C. Standl., *Contrib. U. S. Nat. Herb.* 23: 1244 & 1247. 1924; Moldenke, *Phytologia* 1: 412. 1940; Durand & Jacks., *Ind. Kew. Suppl.* 1, imp. 2, 250. 1941; Moldenke, *Phytologia* 2: 93. 1945; Shreve & Wiggins, *Carnegie Inst. Wash. Publ.* 591: 111. 1951; Durand & Jacks., *Ind. Kew. Suppl.* 1, imp. 3, 250. 1959; Moldenke, *Résumé* 34, 312, & 443. 1959; S. Hicks, *Desert Mag.* 27 (10): 39. 1964; Moldenke in Shreve & Wiggins, *Veg. & Fl. Son. Des.* 2: 1247. 1964; Moldenke, *Phytologia* 12: 20, 27, & 30. 1965; Moldenke, *Fifth Summ.* 1: 67 & 403 (1971) and 2: 554 & 851. 1971.

Illustrations: S. Hicks, *Desert Mag.* 27 (10): 39. 1964.

Recent collectors describe this plant as a small, bushy perennial herb 1--2 dm. tall or a prostrate shrub forming mats 2--3 m. in diameter, with a pronounced minty odor and the small flowers in close spikes. They report the vernacular name, "damiana", and have found the plant growing on dry playas or lake-beds, plains, and flats inland from sand dunes, at the margins of small depressions in the bottoms of dry vernal ponds, in flatlands, and in sandy valleys, flowering in January, March, April, October, and November, and fruiting in April and November.

Gentry found it "in [a] sandy wash near 4-foot well" and comments that it "forms colonial patches 15--20 cm. tall, the herbage aromatic, decocted as a tea, reputed to have aphrodisiac properties; known only from this spot in *Atriplex-Frankenia* halophyte association along old and modern beaches". He and Fox encountered it "on [a] small clay flat with mesquite trees, subject to perennial overflow, used as a decoction of tea for stomach troubles and by women to insure conception." In Shreve & Wiggins (1964) its distribution is given as "Lower Sonoran Zone, vicinity of Calmalli to the Magdalena Plain, Baja California".

The corollas are said to have been "lavender" on H. S. Gentry 7768, Gentry & Fox 11749, Sikes & Babcock 294, and Wiggins & Wiggins 18201, "lavender-pink" on I. L. Wiggins 15086, "light-lavender" on I. L. Wiggins 5423, "pinkish" on I. L. Wiggins 15161, and "white or pinkish" on I. L. Wiggins 5522.

There is some question whether I. L. Wiggins 5522 in the Gray Herbarium is perhaps a mixture with something else.

Hicks (1964) says that "Somehow, somewhere, the damiana plant of Baja California became known as an aphrodisiac. For many years

tons of damiana were shipped from the sea ports of southern Baja to destinations all over the world. Gathering the native shrub meant an increase in tortillas and frijoles to a good many families living in areas where damiana grew and jobs were scarce. But, after several years of uncontrolled harvesting and marketing, the supply was depleted. A single order from a large pharmaceutical firm for 50 tons of damiana was placed at La Paz. It was never filled. A liqueur called Creme de Damiana is manufactured in Guadalajara and is probably flavored by damiana gathered from the interior of Mexico. In Baja the natives continue to gather the shrubs in limited quantities for use as an aromatic tea. Its growth is pretty much confined to the Territory of Southern Baja where the shrubs first become noticeable a short distance south of El Arco, then continue to grow intermittently on down the peninsula to Cape San Lucas. Tips of the branches and tiny leaves and flowers, if the plant is in blossom, are boiled together to make a delicious tea. I have drunk damiana on many occasions and heartily recommend it as a refreshing, flavorful drink. The accepted measurement for making most herb teas, yerba del manzo and eucalyptus leaves excepted, is un porcion de la mano, or, a small handful of twigs and leaves to a quart of water."

Additional citations: MEXICO: Baja California: T. S. Brandegee s.n. [San Benito, 1889] (N--isotype, N--photo of type, Po--63921-type, Z--photo of type), s.n. [Soledad, Jan. 8, 1890] (G); H. S. Gentry 7768 (Ca--757127, Du--323542, Mi, N, Sd--42815, Tu--122005); Gentry & Fox 11749 (Mi); Edw. Palmer 264 (Ca--770290, F--707686, Fs, G, G, Mi, Mi, S); Shreve 6999 (F--892372, Fs, G, Mi); Sikes & Babcock 294 (Au--259160, Au--284573); J. Whitehead 645 (La, N--photo, Z--photo); I. L. Wiggins 5423 (Ca--660687, Du--251739, Du--265884, G, Gg--292595, Gg--305053, Ld, Mi, N, Po--261781, Rs--29956, Se--82598), 5522 (Ca--660961, Du--263482, G, Gg--305157, Mi, N, Po--261912, Se--84384), 7847 (Ca--665436, Du--265984, G, Mi), 15086 (Du--453234, Tu--181096), 15161 (Du--453235, Se--208880); Wiggins & Wiggins 18201 (Au--238528, Du--493655, Mi).

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ADDITIONAL NOTES ON THE GENUS CASSELIA. III

Harold N. Moldenke

CASSELIA Nees & Mart.

Additional synonymy: Timotoica Moldenke in Fedde, Repert. Spec. Nov. 39: 135, sphalm. 1936. Timotocea Moldenke ex Renné, Levant. Herb. Inst. Agron. Minas 150, sphalm. 1960. Timotoua Duarte ex Moldenke, Résumé Suppl. 9: 5, in syn. 1964. Timitocia